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## CRITERIA FOR TENURE AND ACADEMIC RANK DEPARTMENT OF CHEMISTRY & PHYSICS

### INTRODUCTION:

This document, along with the University Faculty Handbook policies on promotion and tenure, delineates the Department of Chemistry & Physics's general faculty responsibilities and the criteria and procedures for promotion consideration. The purposes of this document are to:

- help the candidate gather data and prepare their Record of Service,
- assist departmental, college, and university committees, in evaluating the candidate's Record of Service, and
- assist administrators in evaluating the candidate's Record of Service.

It is important that the candidate recognizes the fact that recommendations pertaining to promotions in academic rank are, as indicated in the Faculty Handbook, *based on qualitative judgments concerning the evidence presented* by the candidate using the departmental Record of Service format. The committees and administrators *qualitatively evaluate* the **items** of evidence provided for each area of performance for their relevance towards *significant and sustained achievement* and express their judgments using the terms **Good, Superior, and Outstanding**. The detailed criteria outlined in this document are the minimum required for promotion.

### PREPARATION OF MATERIALS:

The candidate for promotion and/or tenure is responsible for the collection, organization, and presentation of materials to support their candidacy. A **Summary Form** at the beginning of the dossier is required (see Faculty Handbook Tenure and Promotion Policy). A **vita** highlighting significant activities during the candidate's academic career shall be included. **Letters of recommendation** are included separately in an Appendix to the Record of Service (*vide infra*). The candidate will also prepare a **Record of Service** which provides detailed information demonstrating the quality of activities/accomplishments that have taken place during the period while in the current rank. The activities/accomplishments should be arranged by the performance level (A, B, or C) and by area of evaluation (Teaching, Professional Growth/Scholarly Activities, Service) following the format outlined in the Guide for Collecting Evidence (Faculty Handbook). The candidate should provide rationale as to why they consider the activities and accomplishments to be of sufficient quality. If it is not an individual activity the candidate should provide evidence of their contribution to the overall effort. The candidate must provide a **summary self-evaluation** using the criteria to rank them as good, superior, or outstanding in each of the three areas and the required levels of performance for promotion. The Record of Service is the candidate's primary means to provide convincing evidence that the department's

criteria for promotion and tenure have been clearly met. Supporting material shall be included as appendices.

### **Definition of Some Terms:**

**Sustained:** Sustained refers to efforts that occur during the review period. Sustained does not mean continuous or without breaks.

**Significant:** Two aspects are used in measuring significance of an achievement: the type of evidence (**item**) and the characteristics of the specific **instance** of evidence: The **significance** of an achievement is represented by its place in one of three clusters of excellence-levels of increasing recognition: Level A, Level B, and Level C. **Items** of evidence resulting from essential activities that are expected of every candidate for promotion are in Level A. Levels B and C enumerate additional **items** from which the candidate may select for demonstrating significant achievements. An **item's** relative value, its range of impact, and its success/failure status determine its specific placement in B or C. The candidate, in order to indicate the **significance** of an **instance** of evidence, will indicate its relevance, level of recognition, benefits, and other descriptions as appropriate. The above is an interpretation of *significant* (not a definition).

**Quality** may be demonstrated in many ways, including:

- Recognition of work by peers
- Documented increases in student learning
- Letters of recognition from a senior university administrator or equivalent person outside the university
- By the level of activity: international or national is greater than regional > state > local and external > internal

**Item:** An **item** is a type of evaluative evidence. Example: a *published peer-reviewed article*.

**Instance:** An **instance** of an item refers to a single occurrence of that item.

**Instructional:** An inclusive descriptor related to teaching, such as techniques in classroom presentation, curriculum, course development, and course materials development.

**Peer-reviewed:** A descriptor of the process in which manuscripts, articles, papers, conference proposals, conference presentations, workshops, grant proposals, etc. are subjected to peer review for content, appropriateness, style, etc.

**Publication<sup>1</sup>:** A broad term used to describe the dissemination of scholarship via some public forum, such as articles in peer-reviewed journals, transactions, or proceedings in printed or

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<sup>1</sup> “Books, articles, and reviews are common forms used to demonstrate scholarly activity. Complete bibliographic information and copies of the material augmented by reviewer comments when available are helpful. Some indication of the stature of the publication (juried, circulation, national/regional scope) may provide assistance in judging the scholarly activity of the candidate. In the case of joint authorship, the candidate should indicate his/her contribution.”

electronic form. Some publications – such as, book reviews, reviews of peer-reviewed publications, abstracts, or technical reports – are also considered here which may or may not have been peer reviewed themselves.

### **Criteria for Each of the Levels A, B and C.**

A candidate may present an **instance** of an evidentiary **item** in the Record of Service only once in levels B and C. For example, a specific *instructional publication* may be presented either under C-7 in Teaching Effectiveness or under C-1 in Professional Growth but not under both. However, any evidence listed in levels B and C may be referred to under **items** elsewhere, including those under level A.

Criteria for the three levels of performance (good, superior and outstanding) are stated at the end of each area. The number of evidentiary **items** and **instances** listed are the minimums needed for consideration for each performance rating (Good, Superior, Outstanding).

## **CRITERIA AND EXAMPLES OF EVALUATIVE EVIDENCE FOR TENURE AND/OR PROMOTION IN ACADEMIC RANK**

### **I. Examples of Evaluative Evidence of Effective Teaching**

#### Criteria for Teaching Effectiveness

For Teaching Effectiveness, faculty members will be evaluated on the basis of their performance in teaching and their contributions to the development and maintenance of high quality curricula. Evidentiary **items** for evaluating Teaching Effectiveness are grouped in three levels of increasing recognition. Candidates may include other evidentiary **items** in Teaching Effectiveness not specifically mentioned in any performance level. However, the burden of proof is on the candidate to justify their inclusion.

Note: Teaching Effectiveness is the most important area in the overall evaluation of a faculty member's performance, and is also the most difficult to evaluate. For this reason, such evidence might include, for example, student learning such as pre- and post-tests and samples of student work, peer observations, student ratings, and testimonials from current or former students. Since student ratings are influenced by many non-academic variables, their ratings should never be used as the sole measurement of teaching performance, and, in fact, are not required for promotion.

### **A. Good Teaching Practices**

1. Provide students with current, organized, and coherent course presentations, instructional materials, and exams.
2. Carry out instructional activities expected of all faculty members as stipulated in the Faculty Handbook (e.g. meet scheduled classes or arrange for substitute; report grades; advise students; hold office hours; provide course syllabi; have student evaluations administered in courses.)
3. Remain current in subject matter or in the techniques of teaching by participating, on average, in at least one activity per year such as, for example: courses completed, workshops attended, seminars attended, or special studies undertaken.
4. Perform assigned departmental advising duties.

### **B. Evidence of Superior Teaching**

1. Teach a course for the first time.
2. Improve courses by incorporating new methods or instructional aids, or reorganizing course content to improve student learning. Indicate if an improvement was influenced by activities in A.3.
3. Remain current in subject matter or in the techniques of teaching by participating, in activities beyond those prescribed in A.3.
4. Use feedback from students or peers to monitor and maintain or improve teaching effectiveness.
5. Maintain or improve course content or delivery using course assessment and self-reflection.
6. Be considered by peers to be a superior teacher.
7. Submit internal or external grants for improvement of teaching, new course development or program development.
8. Show that student evaluations of instruction demonstrate that students perceive effective teaching.
9. Provide evidence of maintaining appropriate rigor.
10. Chair a master's thesis or non-thesis committee.
11. Supervise internships, independent studies, student research, honors contracts, and/or other non-traditional teaching activity. The candidate must document their level of involvement in these activities.
12. Participate in curriculum design or redesign.
13. Share expertise and course material with departmental or professional peers, for example present a departmental seminar on a teaching innovation.
14. Submit an instructional article for peer reviewed publication.
15. Make a presentation at a professional conference on an instructional topic.
16. Receive Master Advisor Certification or maintain Master Advisor Certification.
17. Justify other comparable indicators of teaching effectiveness at this level.

### C. Evidence of Outstanding Teaching

1. Demonstrate that the majority of students score at or above the mean on a nationally-normed assessment instrument, such as the MFAT or ACS Standardized Exams, etc.
2. Supervise student research that leads to student presentation or publication.
3. Demonstrate leadership in improving or maintaining the quality of the department's instructional program by obtaining external certification of a course, directing a significant implementation of externally validated pedagogical techniques, participating in extramural teaching, or other activities.
4. Receive external funding for improvement of teaching or new course development. With sufficient documentation, significant internal funding could be considered here as well.
5. Develop a new course or substantially revise an existing course.
6. Develop tools such as a comprehensive lab manual and/or a noteworthy instructional package for use in the curriculum.
7. Publish peer-reviewed instructional material or a peer-reviewed instructional article. Examples include a new laboratory experiment, organization of course content to meet specific needs, a teaching technique, or an appropriate technology application.
8. Conduct a tutorial, seminar, or workshop on a discipline-related topic at a professional conference.
9. Carry out a detailed review of a book that is under revision/development that will be used or is intended for instructional purposes.
10. Receive recognition at the College or University level, or from the teaching community outside the University, for the quality of teaching or pedagogical developments (e.g. College teaching award, Provost's teaching award, etc.).
11. Participate actively in substantial curriculum design or redesign.
12. Justify other comparable indicators of teaching effectiveness at this level.

#### Performance Ratings for Teaching Effectiveness

Good. In order for Teaching Effectiveness to be rated as good, the candidate must provide supporting evidence of sustained activity for all of A throughout the review period.

Superior. In order for Teaching Effectiveness to be rated as superior, the candidate must provide supporting evidence for all of A throughout the review period, plus evidence of four **instances** belonging to two or more different **items** from B and/or C.

Outstanding. In order for Teaching Effectiveness to be rated as outstanding, the candidate must provide supporting evidence for all of A throughout the review period, plus evidence of five **instances** belonging to three or more different **items** from B and/or C, with at least one **instance** from C.

## II. Examples of Evaluative Evidence of Professional Growth and Scholarly Activity

### Criteria for Professional Growth

Faculty members will be evaluated on the basis of maintaining currency in the discipline and contributions to the discipline. The discipline here refers to the disciplines of Chemistry, Physics, Engineering, Geosciences, Science Education and closely related areas as they may evolve. Contributions to the discipline may range from theoretical results through practical products and may be presented in a variety of ways such as journal articles or reports in proceedings. Instructional publications, proposals, or grants may be considered either under Teaching Effectiveness or under Professional Growth. It is suggested that the candidates indicate briefly their specific contributions in multi-authored evidence. Evidentiary items for evaluating Professional Growth are grouped under three levels of increasing recognition. Candidates may include other evidentiary items in Professional Growth not specifically mentioned in any level. However, the burden of proof is on the candidate to justify their inclusion.

#### **A. Activities to Remain Current in the Discipline**

1. Remain professionally engaged through scholarly activities such as attending discipline related conferences, workshops, short courses, seminars, webinars, special studies, or professional meetings.
2. Hold membership in a discipline-related professional organization.
3. Be engaged in scholarly research.

#### **B. Activities Demonstrating Superior Scholarly Accomplishments**

1. Present a contributed paper or poster at a professional meeting.
2. Publish a review of a journal article or book.
3. Contribute to a discipline-related book.
4. Receive an internal grant.
5. Submit an external grant proposal.
6. Submit an article for peer reviewed publication.
7. Review grant proposals or manuscripts for a book, journal article or a conference paper.
8. Perform summer research and/or other professional development activities such as summer internships or joint research programs, or participate in faculty exchange.
9. Participate as a member of a panel on a discipline related topic at a professional meeting.
10. Participate in a major workshop or short course.
11. Be involved in collaborative research with other faculty or students.
12. Publish in a journal that does not require peer-review.
13. Obtain research support from another university, government agency, or industrial laboratory.
14. Justify other comparable indicators of Professional Growth at this level.

#### **C. Activities Demonstrating Outstanding Scholarly Accomplishments**

1. Publish an article in a peer-reviewed journal.
2. Publish a peer-reviewed chapter in a discipline-related book.
3. Publish a peer-reviewed, discipline-related book.

4. Receive an external grant or contract.
5. Perform major editorial functions for a journal or symposium/conference proceedings, etc.
6. Perform professional consulting. The value of these results must be verified.
7. Present an invited paper at a professional meeting.
8. Receive a sabbatical leave requiring external review.
9. Receive recognition from the research community outside the University regarding the quality of scholarly research.
10. Demonstrate leadership in developing or managing a resource used by the scientific community that contributes to the body of knowledge (e.g., scientific software development, or scientific database management).
11. Recognition at the College or University level for the quality of one's research (e.g., receive the College Research Award, etc.).
12. Justify other comparable indicators of Professional Growth at this level.

### Performance Ratings for Professional Growth

Good. In order for Professional Growth to be rated as good, the candidate must provide supportive evidence for all of A throughout the review period.

Superior. In order for Professional Growth to be rated as superior, the candidate must provide supportive evidence for all of A throughout the review period, plus evidence of four **instances** belonging to two or more different **items** from B and/or C, with at least one **instance** from B4, B5 or C4 and at least one **instance** from C1, C2, and/or C3.

Outstanding. In order for Professional Growth to be rated as outstanding, the candidate must provide supportive evidence for all of A throughout the review period, plus evidence of six **instances** belonging to three or more different **items** from B and/or C, with at least one external grant submission (one instance of B5) and two peer reviewed publications (two **instances** from C1, C2, and/or C3), or, 1 peer reviewed publication (C1-C3) and one external grant award (C4).

### **III. Examples of Evaluative Evidence of Service**

#### Criteria for Service

Faculty members will be evaluated on the basis of service to students, service to the Department, College, and University, service to professional bodies, and professional service to society or the community. Evidentiary **items** for evaluating Service are grouped under three levels of increasing recognition. Candidates may include other evidentiary **items** in Service not specifically mentioned in any level. However, the burden of proof is on the candidate to justify their inclusion.

**A. Participation in Departmental Affairs**

1. Perform assigned departmental advising duties.
2. Participate actively in departmental decision-making and in special departmental activities, and serve on departmental committees.
3. Assist the Department or University in student recruiting and admissions activities. This may be done, for example, by participating in Show Me Days, First Steps, providing information to prospective students and their families, and in meeting with prospective students when they visit campus, as assigned.
4. Participate in commencement activities on an average of once per year.

**B. Participation on Extra-Departmental Committees, Leadership on a Departmental Committee, and Other Service**

1. Provide support to students seeking internships, jobs, or graduate school opportunities, for example, by writing reference letters.
2. Provide support for student activities, for example, by serving as an advisor or sponsor to a student organization, by leading extra-curricular field trips, or by coaching student teams in competitions.
3. Serve on a graduate thesis or non-thesis committee.
4. Receive Master Advisor Certification or maintain Master Advisor Certification.
5. Provide professionally related service to the community such as classroom presentations, Science Fair or Science Olympiad judging, career/college day presentations, participating in outreach, or serving on advisory boards.
6. Provide service to the discipline such as reviewing abstracts, manuscripts, or proposals, or serving on a professional committee or task force.
7. Chair a departmental committee that makes a significant contribution to the department's instructional program or overall operation.
8. Active participation on one extra-departmental committee.
9. Justify other comparable indicators of Service at this level.

**C. Activities Resulting in Major Service Contributions to the Profession, the University, or to the General Public**

1. Participate in the governance, administrative, or advisory functions of a professional society.
2. Hold office in a professional society
3. Organize or chair a session at a professional meeting.
4. Chair an extra-departmental committee.
5. Active participation in Faculty Senate and one subcommittee.
6. Active participation on two extra-departmental committees
7. Recognition of outstanding service to the university by a special letter of commendation or award from a senior university official.
8. Leadership in a significant effort to promote science literacy in the K-12 community or the general public.
9. Function as a professional expert for a media outlet, museum, business, corporation, foundation, panel, study group, or government committee.
10. Testify as an expert witness



11. Recognition at the College or University level for the quality of one's Service (e.g., receive the College Service Award, Outstanding Advisor Award, etc.).
12. Justify other comparable indicators of Service at this level.

### Performance Ratings for Service

Good. In order for Service to be rated as good, the candidate must provide supportive evidence of sustained activity for all of A throughout the review period.

Superior. In order for Service to be rated as superior, the candidate must provide supportive evidence for all of A throughout the review period, plus evidence of four **instances** belonging to two or more different **items** from B and/or C.

Outstanding. In order for Service to be rated as outstanding, the candidate must provide supportive evidence for all of A throughout the review period, plus six **instances** belonging to three or more different **items** from B and/or C, with at least one **instance** from C.

### **IV. Minimum Ratings of Performance for Tenure and/or Promotion in Academic Rank**

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|---------------------------|---|
| Professor:                | Two ratings of superior and a rating of outstanding.  |
| Associate Professor:      | At least one peer reviewed publication and two ratings of superior, one of which must be in Teaching Effectiveness, and one rating of good. |
| Assistant Professor:      | A rating of good in all three areas.  |
| Non-Tenure Track Faculty: | A rating of Superior in both Teaching Effectiveness and Service   |